

SEQUENCE LISTING

<110> Allen, Steve
Beckles, Diane M.
Butler, Karla
Pearlstein, Rich

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 Met Arg Ser Ala Glu Gly Ile Thr Tyr Arg Glu Trp Ala Pro Gly Ala
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 Asp His Met Ser Lys Asn Asp Leu Gly Val Trp Glu Ile Phe Leu Pro
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 Tyr Tyr Asp Pro Pro Glu Glu Glu Lys Tyr Val Phe Lys His Pro Gln
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 Pro Lys Arg Pro Lys Ser Leu Arg Ile Tyr Glu Thr His Val Gly Met
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 Ser Ser Pro Glu Pro Lys Ile Asn Thr Tyr Ala Asn Phe Arg Asp Glu
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 Val Leu Pro Arg Ile Lys Arg Leu Gly Tyr Asn Ala Val Gln Ile Met
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Ala Ile Gln Glu His Ser Tyr Tyr Gly Ser Phe Gly Tyr His Val Thr
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 Asn Phe Phe Ala Pro Ser Ser Arg Phe Gly Ser Pro Glu Asp Leu Lys
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 Ser Leu Ile Asp Arg Ala His Glu Leu Gly Leu Val Val Leu Met Asp
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 His Trp Met Trp Asp Ser Arg Val Phe Asn Tyr Gly Asn Lys Glu Val
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 Ile Arg Phe Leu Leu Ser Asn Ala Arg Trp Trp Leu Glu Glu Tyr Lys
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 340 345 350
 His Gly Leu Gln Val Thr Phe Thr Gly Ser Tyr His Glu Tyr Phe Gly
 355 360 365
 Phe Ala Thr Asp Val Asp Ala Val Val Tyr Leu Met Leu Met Asn Asp
 370 375 380
 Leu Ile His Gly Phe Tyr Pro Glu Ala Val Thr Ile Gly Glu Asp Val
 385 390 395 400
 Ser Gly Met Pro Thr Phe Ala Leu Pro Val Gln Val Gly Gly Val Gly
 405 410 415
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 Leu Thr Asn Arg Arg Trp Leu Glu Lys Cys Val Thr Tyr Ala Glu Ser
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 Asp Lys Asp Met Tyr Asp Phe Met Ala Leu Asn Gly Pro Ser Thr Pro
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 Met Gly Leu Gly Gly Glu Gly Tyr Leu Asn Phe Met Gly Asn Glu Phe
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Ser Gly Lys Phe Ile Pro Gly Asn Asn Asn Ser Tyr Asp Lys Cys Arg
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 Met Thr Ser Asp His Gln Tyr Val Ser Arg Lys His Glu Glu Asp Lys
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 Val Ile Val Phe Glu Lys Gly Asp Leu Val Phe Val Phe Asn Phe His
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 Lys Tyr Lys Val Val Leu Asp Ser Asp Ala Gly Leu Phe Gly Gly Phe
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 Gly Arg Ile His His Thr Ala Glu His Val Thr Ser Asp Cys Gln His
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Gly Val Glu Leu Gln Ser Pro Ser Leu Leu Phe Gly Arg Asn Lys Gly
              50              55              60
Thr Arg Ser Pro Arg Ala Val Gly Val Gly Gly Ser Gly Trp Arg Val
              65              70              75              80
Val Met Arg Ala Gly Gly Pro Ser Gly Glu Val Met Ile Pro Asp Gly
              85              90              95
Gly Ser Gly Gly Thr Pro Pro Ser Ile Asp Gly Pro Val Gln Phe Asp
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Ser Asp Asp Leu Lys Val Pro Phe Ile Asp Asp Glu Thr Ser Leu Gln
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 Ile Tyr Glu Ile Asp Pro Thr Leu Arg Asp Phe Lys Tyr His Leu Glu
 180 185 190
 Tyr Arg Tyr Ser Leu Tyr Arg Arg Ile Arg Ser Asp Ile Asp Glu His
 195 200 205
 Glu Gly Gly Met Asp Val Phe Ser Arg Gly Tyr Glu Lys Phe Gly Phe
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 Met Arg Ser Ala Glu Gly Ile Thr Tyr Arg Glu Trp Ala Pro Gly Ala
 225 230 235 240
 Asp Ser Ala Ala Leu Val Gly Asp Phe Asn Asn Trp Asp Pro Asn Ala
 245 250 255
 Asp His Met Ser Lys Asn Asp Leu Gly Val Trp Glu Ile Phe Leu Pro
 260 265 270
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 275 280 285
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 Ser Ser Pro Glu Pro Lys Ile Asn Thr Tyr Ala Asn Phe Arg Asp Glu
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 Ala Ile Gln Glu His Ser Tyr Tyr Gly Ser Phe Gly Tyr His Val Thr
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 Val Val His Ser His Ala Ser Asn Asn Thr Leu Asp Gly Leu Asn Gly
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Phe Ala Thr Asp Val Asp Ala Val Val Tyr Leu Met Leu Met Asn Asp
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Leu Ile His Gly Phe Tyr Pro Glu Ala Val Thr Ile Gly Glu Asp Val
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Ser Gly Met Pro Thr Phe Ala Leu Pro Val Gln Val Gly Gly Val Gly
565 570 575
Phe Asp Tyr Arg Leu His Met Ala Val Ala Asp Lys Trp Ile Glu Leu
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Leu Lys Gly Asn Asp Glu Ala Trp Glu Met Gly Asn Ile Val His Thr
595 600 605
Leu Thr Asn Arg Arg Trp Leu Glu Lys Cys Val Thr Tyr Ala Glu Ser
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His Asp Gln Ala Leu Val Gly Asp Lys Thr Ile Ala Phe Trp Leu Met
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Asp Lys Asp Met Tyr Asp Phe Met Ala Leu Asn Gly Pro Ser Thr Pro
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660 665 670
Met Gly Leu Gly Gly Glu Gly Tyr Leu Asn Phe Met Gly Asn Glu Phe
675 680 685
Gly His Pro Glu Trp Ile Asp Phe Pro Arg Gly Pro Gln Val Leu Pro
690 695 700
Ser Gly Lys Phe Ile Pro Gly Asn Asn Asn Ser Tyr Asp Lys Cys Arg
705 710 715 720
Arg Arg Phe Asp Leu Gly Asp Ala Glu Phe Leu Arg Tyr His Gly Met
725 730 735
Gln Gln Phe Asp Gln Ala Met Gln His Leu Glu Glu Lys Tyr Gly Phe
740 745 750
Met Thr Ser Asp His Gln Tyr Val Ser Arg Lys His Glu Glu Asp Lys
755 760 765

Val Ile Val Phe Glu Lys Gly Asp Leu Val Phe Val Phe Asn Phe His
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Trp Ser Ser Ser Tyr Phe Asp Tyr Arg Val Gly Cys Leu Lys Pro Gly
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Lys Tyr Lys Val Val Leu Asp Ser Asp Ala Gly Leu Phe Gly Gly Phe
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Gly Arg Ile His His Thr Ala Glu His Val Thr Ser Asp Cys Gln His
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<212> PRT

<213> Hordeum vulgare

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Gly Trp Arg Val Val Met Arg Ala Gly Gly Pro Ser Gly Glu Val Met
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Asp Glu Pro Ser Leu His Asp Gly Gly Glu Asp Thr Ile Arg Ser Ser
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Glu Thr Tyr Gln Val Thr Glu Glu Ile Asp Ala Glu Gly Val Ser Arg
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Met Asp Lys Glu Ser Ser Thr Val Lys Lys Ile Arg Ile Val Pro Gln
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Pro Gly Asn Gly Gln Gln Ile Tyr Asp Ile Asp Pro Met Leu Arg Asp
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Phe Lys Tyr His Leu Glu Tyr Arg Tyr Ser Leu Tyr Arg Arg Ile Arg
 165 170 175

Ser Asp Ile Asp Glu Tyr Asp Gly Gly Met Asp Val Phe Ser Arg Gly
 180 185 190

Tyr Glu Lys Phe Gly Phe Val Arg Ser Ala Glu Gly Ile Thr Tyr Arg
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 Glu Trp Ala Pro Gly Ala Asp Ser Ala Ala Leu Val Gly Asp Phe Asn
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 Asn Trp Asp Pro Thr Ala Asp His Met Ser Lys Asn Asp Leu Gly Ile
 225 230 235 240
 Trp Glu Ile Phe Leu Pro Asn Asn Ala Asp Gly Ser Pro Pro Ile Pro
 245 250 255
 His Gly Ser Arg Val Lys Val Arg Met Asp Thr Pro Ser Gly Thr Lys
 260 265 270
 Asp Ser Ile Pro Ala Trp Ile Lys Tyr Ser Val Gln Thr Pro Gly Asp
 275 280 285
 Ile Pro Tyr Asn Gly Ile Tyr Tyr Asp Pro Pro Glu Glu Glu Lys Tyr
 290 295 300
 Val Phe Lys His Pro Gln Pro Lys Arg Pro Lys Ser Leu Arg Ile Tyr
 305 310 315 320
 Glu Thr His Val Gly Met Ser Ser Pro Glu Pro Lys Ile Asn Thr Tyr
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 Ala Asn Phe Arg Asp Glu Val Leu Pro Arg Ile Lys Arg Leu Gly Tyr
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 Asn Ala Val Gln Ile Met Ala Ile Gln Glu His Ser Tyr Tyr Gly Ser
 355 360 365
 Phe Gly Tyr His Val Thr Asn Phe Phe Ala Pro Ser Ser Arg Phe Gly
 370 375 380
 Ser Pro Glu Asp Leu Lys Ser Leu Ile Asp Arg Ala His Glu Leu Gly
 385 390 395 400
 Leu Leu Val Leu Met Asp Val Val His Ser His Ala Ser Ser Asn Thr
 405 410 415
 Leu Asp Gly Leu Asn Gly Phe Asp Gly Thr Asp Thr His Tyr Phe His
 420 425 430
 Gly Gly Ser Arg Gly His His Trp Met Trp Asp Ser Arg Val Phe Asn
 435 440 445
 Tyr Gly Asn Lys Glu Val Ile Arg Phe Leu Leu Ser Asn Ala Arg Trp
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 465 470 475 480
 Ser Met Met Tyr Thr His His Gly Leu Gln Val Thr Phe Thr Gly Ser
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 Gly Asn Ile Val His Thr Leu Thr Asn Arg Arg Trp Leu Glu Lys Cys
 580 585 590
 Val Thr Tyr Ala Glu Ser His Asp Gln Ala Leu Val Gly Asp Lys Thr
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 Ile Ala Phe Trp Leu Met Asp Lys Asp Met Tyr Asp Phe Met Ala Leu
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 Asn Gly Pro Ser Thr Pro Asn Ile Asp Arg Gly Ile Ala Leu His Lys
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 Lys His Glu Glu Asp Lys Val Ile Val Phe Glu Lys Gly Asp Leu Val
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 Phe Val Phe Asn Phe His Trp Ser Asn Ser Tyr Phe Asp Tyr Arg Val
 755 760 765
 Gly Cys Leu Lys Pro Gly Lys Tyr Lys Val Val Leu Asp Ser Asp Ala
 770 775 780
 Gly Leu Phe Gly Gly Phe Gly Arg Ile His His Thr Gly Glu His Phe
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 Thr Asn Gly Cys Gln His Asp Asn Arg Pro His Ser Phe Ser Val Tyr
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 Thr Pro Ser Arg Thr Cys Val Val Tyr Ala Pro Met Asn
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